

IN THE SPECIFICATION

Please add the following paragraph before paragraph 7 in the brief description of the invention.

Figure 1 shows an embodiment of an apparatus for facilitating manufacturing of an object.

Please replace paragraph 7 with the following amended paragraph.

~~Figure 1~~Figure 2 illustrates a method for facilitating manufacturing.

Please replace paragraph 8 with the following amended paragraph.

~~Figure 2~~Figure 3 is a process map of one embodiment of automatically inputting at least a portion of a computer model into a planning program.

Please replace paragraph 9 with the following amended paragraph.

~~Figure 3~~Figure 4 is a perspective view of a part manufactured according to the processes described herein.

Please replace paragraph 10 with the following amended paragraph.

~~Figure 4~~Figure 5 is a perspective view of the part illustrated in ~~Figure 3~~Figure 4 with a single feature modified.

Please replace paragraph 11 with the following amended paragraph.

~~Figure 5~~Figure 6 is a perspective view of a subassembly manufactured according to the processes described herein.

Please replace paragraph 12 with the following amended paragraph.

~~Figure 6~~Figure 7 is a perspective view of the subassembly illustrated in ~~Figure 3~~Figure 6 with a single feature modified.

Please replace paragraph 13 with the following amended paragraph.

~~Figure 7~~Figure 8 is process map for one embodiment of a method for generating computer models.

Please add the following paragraph before paragraph 14 in the detailed description of the invention.

Figure 1 shows an embodiment of an apparatus 11 for facilitating manufacturing of an object. Apparatus 11 includes a computer 13 and a tool 15, such as a manufacturing tool. Computer 13 is coupled to tool 15. In an alternative embodiment, computer 13 is coupled to more than one tool.

Please replace paragraph 14 with the following amended paragraph.

~~Figure 1~~Figure 2 is a method 10 for facilitating manufacturing, wherein method 10 includes generating 12 a computer model of an object using a design program installed on a ~~computer~~computer 13, automatically 14 inputting at least a portion of the computer model into a planning program, and fabricating 16 the object using the planning program.

Please replace paragraph 16 with the following amended paragraph.

~~Figure 2~~Figure 3 is a process map of one embodiment of automatically 14 inputting at least a portion of the computer model into an automatic planning program. An automatic planning program, as used herein, refers to a program configured to automatically capture the solid model information from a program used to generate the solid model, and automatically output a plurality of operational steps to fabricate the top-level assembly.

Please replace paragraph 19 with the following amended paragraph.

~~Figure 3~~Figure 4 is a perspective view of a part 20 manufactured according to the processes described herein. ~~Figure 4~~Figure 5 is a perspective view of part 20 illustrated in ~~Figure 3~~Figure 4 with a single feature 22 modified. In an exemplary embodiment, the planning program for part 20 shown in ~~Figure 3~~Figure 4 includes:

OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
OPERATION 020 FLAME CUT INTERIOR HOLE TO DRAWING
OPERATION 030 PREP FOR WELDING

Please replace paragraph 20 with the following amended paragraph.

If feature 22 (i.e. hole 22) is not desired, as shown in ~~Figure 4~~Figure 5, the planning program is automatically modified, and the modified fabrication plan includes:

OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
OPERATION 020 NOT REQUIRED
OPERATION 030 PREP FOR WELDING

Please replace paragraph 22 with the following amended paragraph.

~~Figure 5~~Figure 6 is a perspective view of a subassembly 30 manufactured according to the processes described herein. ~~Figure 6~~Figure 7 is a perspective view of subassembly 30 illustrated in ~~Figure 5~~Figure 6 with a feature 32 modified and back plate 34 deleted. In an exemplary embodiment, fabrication planning for subassembly 30 shown in ~~Figure 5~~Figure 6 includes:

TOP ASSEMBLY OPERATION 010 SET UP ON MILLING MACHINE
TOP ASSEMBLY OPERATION 020 BORE OUT AS PER DRAWING
TOP ASSEMBLY OPERATION 030 DRILL ALL HOLES AS REQUIRED
SUB ASSEMBLY OPERATION 010 CLEAN ALL PARTS
SUB ASSEMBLY OPERATION 020 WELD ALL SIDES AS PER
DRAWING
SUB ASSEMBLY OPERATION 030 WELD BOTTOM PLATE AS PER
DRAWING
PART ONE OPERATION 010 FLAME CUT TO DRAWING
PART ONE OPERATION 020 PREP FOR WELDING
PART FOUR OPERATION 010 FLAME CUT TO DRAWING
PART FOUR OPERATION 020 PREP FOR WELDING
PART TWO OPERATION 010 FLAME CUT TO DRAWING
PART TWO OPERATION 020 PREP FOR WELDING
PART THREE OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
PART THREE OPERATION 020 FLAME CUT INTERIOR HOLE TO
DRAWING
PART THREE OPERATION 030 PREP FOR WELDING

Please replace paragraph 23 with the following amended paragraph.

If feature 32 (i.e. hole 32) is not desired and a back plate 34 is not desired, as shown in ~~Figure 6~~Figure 7, the planning program is automatically modified, and the modified planning program includes:

TOP ASSEMBLY OPERATION 010 SET UP ON MILLING MACHINE
TOP ASSEMBLY OPERATION 020 BORE OUT AS PER DRAWING
TOP ASSEMBLY OPERATION 030 DRILL ALL HOLES AS REQUIRED

SUB ASSEMBLY OPERATION 010 CLEAN ALL PARTS
SUB ASSEMBLY OPERATION 020 WELD ALL SIDES AS PER
DRAWING
SUB ASSEMBLY OPERATION 030 WELD BOTTOM PLATE AS PER
DRAWING
PART ONE OPERATION 010 FLAME CUT TO DRAWING
PART ONE OPERATION 020 PREP FOR WELDING
PART TWO OPERATION 010 FLAME CUT TO DRAWING
PART TWO OPERATION 020 PREP FOR WELDING
PART THREE OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
PART THREE OPERATION 020 NOT REQUIRED
PART THREE OPERATION 030 PREP FOR WELDING

Please replace paragraph 26 with the following amended paragraph.

~~Figure 7~~Figure 8 is a process map for one embodiment of automatically 14 inputting at least a portion of the computer model into a tooling program. Tooling program as used herein, refers to a program configured to capture the solid model information from the program used to generate the solid model, and output a list of tools used to fabricate the top-level assembly. In an exemplary embodiment, a ~~computer~~computer 13 including the planning program is coupled to at least one tool and is configured to receive information from the planning program and automatically select ~~the tool~~tool 15 based on the planning program. The planning program then directs ~~the tool~~tool 15 to perform a desired operation, e.g., cut, drill, punch, press, roll, bend, knurl, heat treat, anneal, anodize, polish, machine, etc.

Please replace paragraph 29 with the following amended paragraph.

In an exemplary embodiment, fabrication tooling for part 20 shown in ~~Figure 3~~Figure 4 includes:

OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
OPERATION 020 FLAME CUT INTERIOR HOLE TO DRAWING
OPERATION 020 TOOL NUMBER MS XXX 2.00 ~~INCH~~MILLINCH
MILL
OPERATION 030 PREP FOR WELDING

Please replace paragraph 30 with the following amended paragraph.

If hole 22 (shown in ~~Figure 3~~Figure 4) is not desired, as shown in ~~Figure 4~~Figure 5, the fabrication tooling is automatically modified, and the modified fabrication plan includes:

OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
OPERATION 020 NOT REQUIRED
OPERATION 030 PREP FOR WELDING

Please replace paragraph 32 with the following amended paragraph.

In an exemplary embodiment, fabrication tooling for subassembly 30 (shown in ~~Figure 5~~Figure 6) includes:

TOP ASSEMBLY OPERATION 010 SET UP ON MILLING MACHINE
TOP ASSEMBLY OPERATION 020 BORE OUT AS PER DRAWING
TOP ASSEMBLY OPERATION 030 DRILL ALL HOLES AS REQUIRED
SUB ASSEMBLY OPERATION 010 CLEAN ALL PARTS
SUB ASSEMBLY OPERATION 020 WELD ALL SIDES AS PER
DRAWING
SUB ASSEMBLY OPERATION 030 WELD BOTTOM PLATE AS PER
DRAWING
PART ONE OPERATION 010 FLAME CUT TO DRAWING
PART ONE OPERATION 020 PREP FOR WELDING
PART FOUR OPERATION 010 FLAME CUT TO DRAWING
PART FOUR OPERATION 020 PREP FOR WELDING
PART TWO OPERATION 010 FLAME CUT TO DRAWING
PART TWO OPERATION 020 PREP FOR WELDING
PART THREE OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
PART THREE OPERATION 020 FLAME CUT INTERIOR HOLE TO
DRAWING
PART THREE OPERATION 020 TOOL NUMBER MS XXX 2.00 INCH
~~MIL~~LINCH MILL
PART THREE OPERATION 030 PREP FOR WELDING

Please replace paragraph 33 with the following amended paragraph.

If hole 32 and plate 34 are not desired, as shown in ~~Figure 6~~Figure 7, the fabrication planning is automatically modified, and the modified fabrication plan includes:

TOP ASSEMBLY OPERATION 010 SET UP ON MILLING MACHINE
TOP ASSEMBLY OPERATION 020 BORE OUT AS PER DRAWING
TOP ASSEMBLY OPERATION 030 DRILL ALL ~~HOLES~~HOLES AS
REQUIRED
SUB ASSEMBLY OPERATION 010 CLEAN ALL PARTS
SUB ASSEMBLY OPERATION 020 WELD ALL SIDES AS PER
DRAWING
SUB ASSEMBLY OPERATION 030 WELD BOTTOM PLATE AS PER
DRAWING
PART ONE OPERATION 010 FLAME CUT TO DRAWING
PART ONE OPERATION 020 PREP FOR WELDING

PART TWO OPERATION 010 FLAME CUT TO DRAWING
PART TWO OPERATION 020 PREP FOR WELDING
PART THREE OPERATION 010 FLAME CUT EXTERIOR TO DRAWING
PART THREE OPERATION 020 NOT REQUIRED
PART THREE OPERATION 030 PREP FOR WELDING